

Notice of Allowability

Application No.

09/843,250

Examiner

Delia M. Ramirez

Applicant(s)

PARALES ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/24/2003.
2. ☒ The allowed claim(s) is/are 1-4, 8-10 and 30-37.
3. ☒ The drawings filed on 25 June 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____. |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____ | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

DETAILED ACTION

Status of the Application

Claims 1-4, 8-10, 30-38 are pending.

Amendment of claims 1-4, 8-10, 30-37 and cancellation of claims 5-7, 11-29 in a communication filed on 11/24/2003, are acknowledged.

In a telephone conversation with Katharine Jackson on 12/19/2003, an agreement was reached to amend claims 1-3, 37 and cancel claim 38 to place the application in condition for allowance.

Examiner's Amendment

1. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this Examiner's amendment was given in a telephone interview with Katharine Jackson on 12/19/2003.
3. Please enter the following amendments:
4. Please cancel claim 38.
5. Please replace claims 1-3 and 37 as follows:
 1. A dioxygenase complex comprising a plurality of polypeptides, wherein the complex catalyzes the oxidation of an aromatic substrate and comprises at least one alpha-subunit polypeptide selected from the group consisting of:
 - (a) a polypeptide comprising SEQ ID NO: 26 with a substituted amino acid at position 352 of SEQ ID NO: 26,
 - (b) a polypeptide comprising SEQ ID NO: 26 with a substituted amino acid at position 201, 202, 260, 316, 351, 358, 362, or 366 of SEQ ID NO: 26,

(c) a polypeptide comprising SEQ ID NO: 26 with a substituted amino acid at position 352 of SEQ ID NO: 26 and a substituted amino acid at position 201, 202, 260, 316, 351, 358, 362, or 366 of SEQ ID NO: 26,
or a fragment of said dioxygenase complex that catalyzes oxidation of an aromatic substrate.

2. The dioxygenase complex of claim 1 having an alpha-subunit that comprises SEQ ID NO:26 with an amino acid other than phenylalanine at position 352 of SEQ ID NO: 26, or a fragment thereof that catalyzes oxidation of an aromatic substrate.

3. The dioxygenase complex of claim 1 having an alpha-subunit that comprises SEQ ID NO:26 with a substituted acid at position 201, 202, 260, 316, 351, 352, 358, 362, or 366 of SEQ ID NO: 26, or a fragment thereof that catalyzes oxidation

37. The dioxygenase complex of claim 3 having an alpha-subunit that comprises tryptophan at position 366.

Reasons for Allowance

6. The following is an Examiner's statement of reasons for allowance. Although the prior art discloses dioxygenases which catalyze the oxidation of an aromatic compound, the Examiner has found no teaching or suggestion in the prior art directed to dioxygenase complexes comprising the polypeptide of SEQ ID NO: 26 with the amino acid substitutions as recited in the claims. Therefore, claims 1-4, 8-10, 30-37 directed to dioxygenase complexes that catalyze oxidation of an aromatic substrate comprising the polypeptide of SEQ ID NO: 6 with the amino acid substitutions recited, the polypeptides of SEQ ID

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NO: 2, 32, 33, 34, 35, or 36, or fragments of said complexes that catalyze oxidation of an aromatic substrate, are allowable over the prior art of record.

7. Claims 1-4, 8-10, 30-37 are allowed.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delia M. Ramirez whose telephone number is (703) 306-0288. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Ponnathapura Achutamurthy can be reached on (703) 308-3804. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Delia M. Ramirez, Ph.D.
Patent Examiner
Art Unit 1652

DR
December 19, 2003



